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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,732	05/08/2001	Timothy M. Dubois	ORCL-0010801	3656

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 WAGNER, MURABITO & HAO LLP
 Third Floor
 Two North Market Street
 San Jose, CA 95113

EXAMINER

HECK, MICHAEL C

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/851,732	Applicant(s) DUBOIS ET AL.	
	Examiner Michael C. Heck	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a First Office Action in response to the application filed 08 May 2001. Claims 1-19 are pending in this application and have been examined on the merits as discussed below.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 800 (page 18, line 23). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

- On page 4, line 8, delete "customer defined limit", and insert -- customer defined limits --.

- On page 19, line 15, delete "and function keys is coupled", and insert -- and function keys coupled --.

The above citation is a mere guide. Applicant is requested to review the specification thoroughly to eliminate additional errors. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. **Claims 1, 11, 12, 15 and 16** are rejected under 35 U.S.C. 102(e) as being anticipated by Joshi et al. (U.S. Patent 6,532,427). Joshi et al. disclose a six sigma enabled web-based business intelligence system comprising:

- **[Claim 1]** a) in response to a user request to a web site operable to access said enterprise wide business data and to provide statistical analysis of said enterprise wide business data, transferring an electronic document to said user, wherein said electronic document allows said user to select a

- performance measure to be analyzed for a data set in said enterprise wide business data (col. 2, lines 21-31, col. 3. line 63 to col. 4., line 7, and Figure 2, Joshi et al. teach statistical process control (SPC) information for manufacturing processes are gathered and presented to personnel responsible for the manufacturing processes. The users interact with the SPC information system via a hypertext-based or Web-like interface. At a "home page", the user can indicated which data is to be viewed by clicking on associated hyperlinks. For example a list of the work centers for which data is available may be presented, and hyperlinks for the work centers point to corresponding hypertext summaries of the available data such as displayed in figure 2. The Examiner interprets a list of work centers to be an electronic document transferred to the user that allows the user to select a performance measure to be analyzed.);
- b) in response to a request from said user, performing a statistical analysis of said performance measure (col. 4, line 67 to col. 5, line 5, Joshi et al. teach raw process data is gathered and statistical analysis is performed.); and
 - c) transferring an electronic copy of said statistical analysis to said user (col. 4, line 67 to col. 5, line 5, Joshi et al. teach raw process data is gathered and statistical analysis is performed, and files presenting the results are created and placed in a browsable collection accessible to the user.).
 - **[Claim 15]** a) in response to a request from a peripheral computer system, a host computer system transferring an electronic document to said peripheral computer system, wherein said electronic document has selectable fields for a plurality of dimensions to select a data set accessible by said host computer system (Joshi et al.: Abstract, col. 3, lines 33-67, Joshi et al. teach a statistical process control information system that includes a process information system and an analysis information system. The analysis information system generates a script file and a command file. The script file includes responses to commands-line queries generated by a process data extraction program, and the command file includes commands for invoking the process data extraction program and copying an extracted data file to the analysis information system. A number of work centers of a manufacturing facility are couple to a statistical process control (SPC) information system. The SPC information system has connections to a set of users who use the SPC information system in performing activities pertaining to the respective work centers. The SPC information system includes various data processing equipment and programs for collecting, storing, retrieving, and analyzing raw process data. The raw process data enters the SPC information system at the various work centers. The users interact with the SPC information system via a hypertext-based or Web-like interface. User-accessible information is organized into a private Web site that can be viewed using a standard

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- browser over a corporate intranet. The Examiner interprets the SPC information system is configurable to customize requested information for display on a standard browser for a particular user.) ;
- b) in response to a request from said peripheral computer for a statistical analysis of a performance measure for said data set, said host computer system performing said statistical analysis (Joshi et al.: Abstract, Joshi et al. teach the analysis information system performs statistical analysis on the extracted data file and creates graphical SPC chart files.); and
 - c) said host computer system electronically transferring an electronically viewable version of said statistical analysis to said peripheral computer system (Joshi et al.: Abstract, Joshi et al. teach the analysis information system performs statistical analysis on the extracted data file and creates graphical SPC chart files, including a hypertext summary, and these are posted in a network-accessible database for users.).
 - **[Claim 16]** d) collecting said data from a plurality of databases (Joshi et al.: col. 3, lines 51-63, Joshi et al. teach the SPC information system includes various data processing equipment and programs for collecting, storing, retrieving, and analyzing raw process data. The raw process data enters the SPC information system at the various work centers.); and
 - e) formatting said data in a single format, wherein data from multiple databases in multiple formats is converted to a single format and stored on a single database, and wherein said peripheral computer system does not have direct access to said databases (Joshi et al.: col. 3, lines 33-63, Joshi et al. teach the SPC information system includes various data processing equipment and programs for collecting, storing, retrieving, and analyzing raw process data. The raw process data enters the SPC information system at the various work centers. Work centers included a lithography (litho) work center, etch work center, diffusion work center, and other work centers of a semiconductor manufacturing facility. For example, an operator in the litho work center takes CD measurements on wafers after lithographic processing, and enters the measurements into the SPC information system via a computer terminal, workstation, or similar input device. Similar activities occur at other workstations. The raw process data is gathered, or "extracted", from the process information system, statistical analysis is performed on the extracted data, and files presenting the results of the statistical analysis are created. These files are placed in a browsable collection accessible to the user. The Examiner interprets the information gathered is for different types of measure (i.e., temperature, concentration or physical dimensions) and is formatted to be used by the system, and the data

flow process used prevents users from having direct access to the raw process information once entered and analyzed.).

Claims 11 and 12 substantially recite the same limitations as that of claims 1, 15 and 16 with the distinction of the recited method being a system. Hence the same rejection for claims 1, 15 and 16 as applied above applies to claims 11 and 12.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-10, 13 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joshi et al. (U.S. Patent 6,532,427) in view of Stephen Quality Software (Stephen Quality Software, SPC Software - DataLyzer® Spectrum, October 13, 1999 [online: URL www.datalyzer.com] [WAYBACK Machine] retrieved on 31 May 2005). Joshi et al. disclose a six sigma enabled web-based business intelligence system comprising:

- **[Claim 2]** c1) transferring a Hyper-Text Markup Language document comprising said statistical analysis (Abstract, Joshi et al. teach the analysis information system performs statistical analysis on the extracted data file and creates graphical SPC charts files, including a hypertext summary, and these are posted in a network-accessible database for users.).

Joshi et al. fail to teach said statistical analysis is in histogram format. Stephen Quality Software teaches DataLyzer® Spectrum SPC software includes real-time data entry control charts that are instantly available for capability Study/Histogram reports (Para

26). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include the DataLyzer® Spectrum SPC software of Stephen Quality Software with the teachings of Joshi et al. since Joshi et al. teach a graphical SPC chart file is created based on the associated data from the statistical analysis (col. 2, lines 60-63). Having immediate process feedback allows operators to be more efficient in making decision that impact product quality. ODBC "open database connective" file structure makes DataLyzer® Spectrum data universally available to other applications. Real time input (variable, Attribute, Histogram/Incoming Inspection) allows immediate response to process problems (Stephen Quality Software: Para 10 and 11). The method and apparatus for gathering statistical process control (SPC) information and presenting the SPC information to personnel are flexible and highly automated, enhancing the ease and efficiency of their use. The SPC information presented to users enables the users to make even more effective user of the time spent reviewing the gathered data (Joshi et al.: col. 2, lines 21-31). Therefore, the combination of Joshi et al. and Stephen Quality Software results in getting immediate process feedback that allows operators to be more efficient in making decision that impact product quality. Both Joshi et al. and Stephen Quality Software teach automating data collection, and charting and analyzing the data using Statistical Process Control techniques, therefore motivation to combine and expectation to be successful would exist. All features of the claimed invention are taught by the combination of Joshi et al. and Stephen Quality Software.

- **[Claim 3]** d) overlaying on said histogram an indicator of a statistical mean and an indicator of a user specified target limit (Stephen Quality Software:

Para 12 and Chart 29, Stephen Quality Software teach DataLyzer® Spectrum will calculate control limits or they can be set manually. Chart 29 shows mean and the Upper and Lower Specification Limit.).

- **[Claim 4]** e) highlighting the area of said histogram outside of said user specified target limit, wherein the relative number of defects are graphically visible (Stephen Quality Software: Para 28 and Chart 29, Stephen Quality Software teach percent below lower specification and percent above upper specification. The Examiner interprets "highlighting the area" to be displaying and making the user aware of the information to include displaying the information of the chart as displayed in Chart 29.).
- **[Claim 5]** d) in response to an electronic request from said user, running a simulation to determine the effect varying a user specified statistical parameter of a plurality of statistical parameters has on another statistical parameter (Stephen Quality Software: Para 12 and 19, Stephen Quality Software teach DataLyzer® Spectrum will calculate control limits or they can be set manually. Math functions can be used to manipulate current readings, constants, process parameters and other characteristics. The Examiner interprets that as the user is manually or mathematically manipulating the characteristics, the graph shows the impact on other statistical parameters, the user is simulating real-time conditions.); and
- e) electronically transferring the results of said simulation to said user, wherein the user is presented a graphical display providing information to assist in quality improvement (Stephen Quality Software: Para 26, Stephen Quality Software teach real-time data entry control charts is instantly available for Capability Study/Histogram reports.).
- **[Claim 6]** wherein said plurality of statistical parameters comprise statistical mean, standard deviation, a user specified target, actual percentage of data above and below said user specified target, and sigma value (Stephen Quality Software: Para 12 and 28, Stephen Quality Software teach control limits can be set manually. Mean, sigma, three, four, five, and six sigma limits, percent below lower specification and percent above upper specification are displayed on the Histogram report. The Examiner interprets the manually set control limits to be a user specified target.).
- **[Claim 7]** d) in response to a user request, determining a trend of a statistical parameter over time (Stephen Quality Software: Para 17 and 21, Stephen Quality Software teach storing unlimited sets of stepped control limits to track reoccurring process shifts, and users-selectable process shift and stratification analysis, including Western Electric run and trend rules.); and

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- e) electronically transferring a Hyper-Text Markup Language document comprising a display of said trend (Joshi et al.: Abstract, Joshi et al. teach the analysis information system performs statistical analysis on the extracted data file and creates graphical SPC charts files, including a hypertext summary, and these are posted in a network-accessible database for users.).
- **[Claim 8]** wherein said statistical parameter is a sigma value (Stephen Quality Software: Para 28, Stephen Quality Software teach upper and lower Z values are displayed on the reports.).
- **[Claim 9]** d) as new data is added to said business data, determining if a statistical parameter for said performance measure is outside a user specified target (Stephen Quality Software: Para 12 and 15, Stephen Quality Software teach real-time data collection and real-time statistical indicators show 20+ alarm conditions in red, green, yellow and other color flags. The Examiner interprets real-time data collection and indicators suggests a determination is made as to whether the performance measure is outside a user specified target.); and
- e) automatically notifying said user if said step d) is true, wherein said notification comprises an electronically delivered message to a user specified node (Stephen Quality Software: Para 11, 12 and 26, Stephen Quality Software teach real-time data collection and real-time statistical indicators show 20+ alarm conditions in read, green, yellow and other color flags. Real-time input allows immediate response to process problems. Real-time data entry control charts are instantly available. The Examiner interprets real-time collection, real-time indicators and real-time control charts that are instantly available suggest the user is notified.).
- **[Claim 10]** wherein said step d) comprises the step of: d1) analyzing said performance measure according to a periodic rate specified by said user (Stephen Quality Software: Para 26, Stephen Quality Software teach a batch report facility allows reoccurring sets of reports to be printed instantly.).
- **[Claim 17]** a standardized presentation of said statistical analysis is available to multiple distributed peripheral computer systems (Stephen Quality Software: Para 26, Stephen Quality Software teach a batch report facility allows reoccurring sets of reports to be printed instantly. Joshi et al.: Figure 2 and col. 4, lines 6-20, Joshi et al. teach a hypertext data summary that is a table where each row includes data corresponding to a particular data collection operation.).
- **[Claim 18]** said step c) comprises the step of: c1) formatting said statistical analysis in graphical format, wherein the variance of said data set is

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graphically viewable (Stephen Quality Software: Para 28-29, Stephen Quality Software teach a graph that shows percent below lower specification and percent above upper specification.).

- **[Claim 19]** said step c1) comprises the step of highlighting data points which are outside of a target range, wherein the relative number of defective data are viewable (Stephen Quality Software: Para 12 and 28-29, Stephen Quality Software teach a graph that shows percent below lower specification and percent above upper specification. Real-time statistical indicators show 20+ alarm conditions in read, green, yellow and other color flags.).
- **[Claim 20]** the steps of: d) in response to an electronically transferred request from said peripheral computer system, running a simulation on said statistical analysis by varying a statistical parameter (Stephen Quality Software: Para 12 and 19, Stephen Quality Software teach DataLyzer® Spectrum will calculate control limits or they can be set manually. Math functions can be used to manipulate current readings, constants, process parameters and other characteristics. The Examiner interprets that as the user is manually or mathematically manipulating the characteristics, the graph shows the impact on other statistical parameters, the user is simulating real-time conditions.); and
- e) electronically transferring the results of said simulation to said peripheral computer system, wherein a user is allowed to see the effect of changing said statistical parameter (Stephen Quality Software: Para 26, Stephen Quality Software teach real-time data entry control charts is instantly available for Capability Study/Histogram reports.).

Claim 13 substantially recites the same limitations as that of claims 9 and 19 with the distinction of the recited method being a system. Hence the same rejection for claims 9 and 19 as applied above applies to claims 13.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- Hsiung et al. (U.s. Patent 6,853,920) disclose a control for an industrial process using one or more multidimensional variables.
- Statware News Release (Statware News Release, Statware Integrates With Oracle Applications, 30 June 1999 [GOOGLE]) discloses the integration of Statware Statit™ with the Oracle Quality® application provides Oracle® Manufacturing customers with the best-in-class statistical process control (SPC) solution by providing superior quality control and advanced SPC analysis and presentation capabilities.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Michael C. Heck whose telephone number is (571) 272-6730. The Examiner can normally be reached Monday thru Friday between the hours of 8:30am - 4:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq R. Hafiz can be reached on (571) 273-6729.

Any response to this action should be mailed to:

Director of the United States Patent and Trademark Office
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Or faxed to:

(703) 872-9306

[Official communications; including After Final communications labeled "**Box AF**"]

(571) 273-6730

[Informal/Draft communication, labeled "**PROPOSED**" or "**DRAFT**"]

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01 June 2005


TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600